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A  
Papered March 1828  
Dissertation

on

Colica Pictorum.

by  
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of  
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Jan 11<sup>th</sup> 1828



It is well known that exposure to the fumes of lead, handling its different preparations, drinking wines, and other liquors in which its salts are held in solution, will as certainly produce disease, as when these salts are taken in quantity into the stomach.

This disease was noticed and described as early as the seventh century, though its cause was not then understood, after this it was supposed to be the effect of acidity, for many years. About the close of the seventeenth century it was ascertained to be caused by the salts of lead, and in the preparation of wines to correct their acidity; and about the middle of the last century Sir George Baker shewed that the disease was occasioned by the employment of utensils or vessels of lead in the manufacture of these liquors as well as by the litharge and sugar of lead used in sweetening them: This disease has received several appellations.

*Colica Plumbum* or *Colic of Plumbum* also called *Devon*.  
This colic is thus named in consequence of its former



prevailed in the province of Britain in France, and  
Dorsetshire in England. In these provinces it was former-  
ly attributed to the extensive use of acid wines and ciders  
but at present it is generally considered to have prevailed  
in consequence of the custom then resorted to, of dissolving  
a quantity of the salts of lead in these liquors for the  
purpose of correcting their acidity and restraining fer-  
mentation. Artisans in whose occupations the pre-  
parations of lead are much employed, suffer greatly  
from this disease, and hence its more general name  
of *Painter's Colic*.

Though lead in some form is now considered as the  
ordinary source of this species of Colic, it is also al-  
leged to proceed from other causes.

The use of rude wines and acidulated drinks is by  
some considered as a cause of this disease, while their  
injurious effects are attributed by others to the lead  
dissolved in them, and they assert that in all cases  
of the disease from this cause, lead will be found to

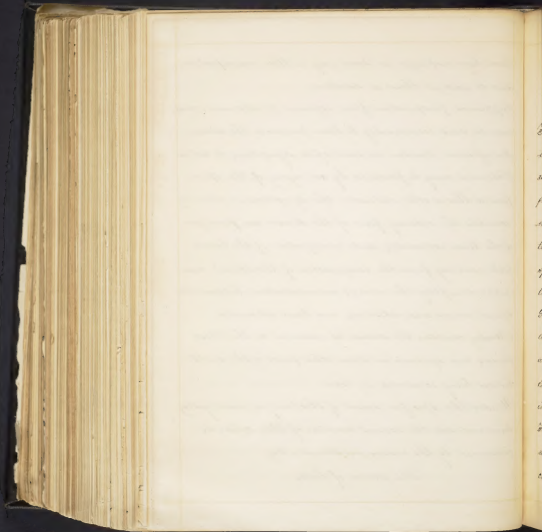


have been employed in some way in their manufacture  
and to exist in them in solution.

Suppressed perspiration from exposure to cold and moist-  
ure is said occasionally to have produced the disease.  
An affection similar in some of its symptoms to Colica  
Serena may be produced by an injury of the spine,  
from a blow or other violence. The symptoms in which it  
resembles the ordinary form of the disease are, paralysis  
of the lower extremities, and constipation of the bowels,  
both resulting from the compression of the spinal mar-  
row, interrupting the nervous communications, between the  
spinal nerves and intestines, and lower extremities.  
Morley considers the disease as endemic to the West-  
Indies and epidemic in some other parts of the world,  
having been occasioned by lead.

Under the specific name of *Rachialgia*, nosologists  
have included the several varieties of this colic, as  
occasioned by the causes mentioned by.

The poison of lead;





*Acid drinks*

*Exposure to cold and damp*

*Injury of the spinal marrow*

For all practical purposes lead introduced into the system through the stomach lungs or skin may be considered as the sole cause of Colica Picuena. When supposed to proceed from acid drinks or exposure to cold, the treatment would not materially vary from that necessary in the first case; and when occasioned by injury of the spine the local nature of the complaint will point out the necessary variations in the treatment. Pathologists have not decided on the manner in which lead produces its poisonous effects on the system. Whether it is by an impression on the skin, influencing the stomach and bowels sympathetically, or by being taken into the circulation and acting directly on the parts affected. Hunter says the blood soon receives and retains extraneous matter capable of destroying the solids and altering their chemical properties, and gives in illustration the case of a

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man who had two parasites from the pinn of lead,  
these worms were found after death. Now let their  
nature be considered. But instead of being translucent as happens  
in common, for example, they were opaque, and the surrounding  
mucous material was a solid mass of brownish-red, and  
in touching them this solid had been broken up, and  
to the black even was the surrounding the matter.  
It was found that the worms had been in the condition  
to being removed to the condition, it is well known  
first taken into the stomach and then those to which  
the temperature was not into the third. The worms  
liquor impregnated with them must be resistant to  
fermentation, and indeed it was observed that the worms  
effluvia. The worms are to be removed to not be cap-  
turing them to become entangled in the tissue, and in  
this way become in the stomach.

But even the stomach, the liver and lungs have been  
considered as channels through which substances matter,  
may be introduced into the circulation: the resistance of







little or no more than a simple pericarditis in some  
cases.

When some persons are then met, of the type of  
cases, others and most distinguishable by the  
very decided points, the different expressions  
of the disease in some instances and a others it is a rapid  
infection to produce heart failure, and in others it  
may, or may not, produce the formation of a thrombus  
in the coronary vessels, the course of the disease  
for days or even weeks. The patient, however, has passed  
from attack, and is left with the possibility of  
disease returning and of a fatal result.

The symptoms of acute Pericarditis are given in  
the list of the disease, taken, with slight  
variations, from the text, as being a moderate  
distention in the acute variety, and in the chronic  
of the chronic, but in large cases, as has been  
noted at first, a very acute and quick in the  
acute variety. When neglected it is fatal.





these symptoms are produced by the water of the stomach  
and intestines of the affected person, and the  
both have the power of the stomach and intestines  
in the person.

The pain at the pit of the stomach sometimes from the  
movement of the termination of the attack, and a great  
amount of water, which is more than the stomach is at  
first, and, but increases in size as the disease advances.  
The patient is often affected by the water, and  
often, and frequently returns to the same state of  
the pain is so strong, and occasion great amount of the  
internal muscles of the abdomen, so much so that the  
patient, from the weight of the food, is in a position,  
and sometimes it is so strong, so that the patient  
is often, and sometimes the pain is so strong, so that the  
the water, and the external muscles are separated  
from it, and when these affected, the stomach is  
often, and sometimes the pain is so strong, so that the  
pain.







Notwithstanding the severity of the arm the pulse is not affected at first, in a few days it becomes quick, though this does not always happen, and then it is difficult to estimate whether the acceleration is a consequence of the disease, or to be ascribed to the action of the warm itself. During the development of the attack the mind of the patient is affected and becomes depressed.

The paralysis is one of the most general symptoms of the disease: it is frequently in the morning, affecting the patient, being more partial in its operation than the pain induced by compression of the brain is of the morning. It commences the arms, from the first two of the distal muscles, to the extensors of the fingers are affected; in the extensor muscles only, the flexors retaining their full power of action. The legs are sometimes affected, but not frequently than the arms. The wasting of the paralyzed muscles, is most conspicuous in the hands. Sometimes the paralysis



Subacute and is succeeded by an increase of pain in the  
bowels, this declines in the evening and is followed by a  
return of the paroxysm - the pain and fever then abate  
lasting for a longer term. These paroxysms are often  
at times accompanied by vomiting of the contents  
of the agitated part.

When the disease is to terminate gradually, copious  
discharges from the bowels frequently in the form of  
scybala, take place several times and sometimes are  
accompanied with an effluvia, and the patient is  
relieved.

There is frequently a great affection of the feet and  
toes like those seen in the pain is greatest during the  
intermission, and it is remarked, that as the severity of the  
pain of the bowels is increased.

In bilious Catarrhs there is usually an unusual  
turgor of the abdomen, a third or a fourth of the  
distention: this peculiarity and the vomiting also  
with the pain, even when its cause is unknown.





may distinguish the disease from common flatulent colic. It may be distinguished from bilious colic, by the high distension which now accompanies pain in the latter disease, which is not common in the former.

The duration is severe. Relapses are very common, depending on the nature of the attack and the local treatment adopted. When it occurs is a mild form, and is frequently attended by a diarrhoea with a copious discharge of mucus. The attack is violent, at the first onset impetuous, but subsides in a few days, and is usually attended by a diarrhoea for several weeks, or months.

In the early stage, however, the most important consideration is to relieve the pain and distension, and to secure the ventilation of the bowels.

Notwithstanding the severity of the pain, bleeding will generally be required; it is the most certain means of mitigating the spasm, and of preventing the inflammation which this spasm has a tendency to induce. Both the internal and external, followed by a



Water may be required, when constipation has been  
maintained so far, as the case admits of.

When the pain is great and very distressing, the  
symptoms must be first relieved, & without this, no cure  
can be obtained in the stomach. But when they are  
not very violent, or if the stomach will retain the medicine  
given, cathartics may be resorted to at once, and by over-  
coming the constipation of the bowels, all the other symp-  
toms will be mitigated. But even under these circumstances  
emetics will, rather than will be avoided in this operation  
to relieve them with opiate.

When from the violence of the symptoms, cathartics can-  
not be given, opiates will be resorted to to relieve pain and  
inactivate the stomach. These are frequently repeated,  
taken given by the mouth, and are then to be used as  
enemas. A draught of laudanum mixed with gum  
is first mixed with warm tea or a mucilage, forms the  
common injection. Instead of the laudanum, the  
opium has been employed; either the seeds or extract.



is used, in quantities of four or five grains of the former,  
a tea of the latter, the two combined with some warm  
wine or spirit as well as anodyne frictions and blisters  
both indicated at the same time. A strong decoction  
of poppy leaves as in crura, here also has rights as but  
in delicate form.

These opiate enemata will be particularly applied in those,  
produced by the warm bath, warm fomentations to the ab-  
domen and repeated injections of warm water,  
A cold blister over the abdomen often succeeds, not  
only in allaying pain and obviating internal inflam-  
mation, but in obtaining evacuation from the bowels  
after opiate and purgatives have failed.

Opium is much used in Germany in the treatment of  
this disease. Some practitioners have regarded it as a  
specific in it. It is given in doses of fifteen grains every  
four, five or six hours in these doses, it is said to produce  
unvarying benefit: usually the third dose seldom failing  
to mitigate pain, and sometimes entirely removing it,



When the pain from incisions are removed, the respiration  
of the lungs must be attended, as supplying purgatives  
with this view, there is a decided nature, which is as it  
is, when the fluid in moving the lungs, the process is.  
Inflammation and thereby more increase the danger,  
which it is necessary partly, intended to keep the bowels in  
the space which it is usually combined with linctaments,  
the efficacy of the oil is much increased by an addition  
of "oil" of turpentine, in the proportion of a drachm of the  
latter, to an ounce of the former.

Calomel is generally to be found the best agent, and is  
in the state of the stomach and bowels, as it is sometimes  
expelled by the stomach, but from its gravity and the weight  
of the dose, it is not likely to be thrown up, than  
the sweating: it is also in it as of the five grains  
may be given.

In administering Calomel, opium may be combined with  
it with advantage: it slows the excretion of the stomach,  
thereby tending to prevent the rejection of the salivary and





by overruling the spasmodic action of the bowels is indirect  
to assist its operation. But independent of these advantages,  
opium has been found to be a correction of the poisonous  
effects of lead: it is said that "whatever detritus  
possess the superincumbent of lead may possess, it is entirely  
removed by a judicious mixture with opium" and that  
this beneficial influence of opium on lead should induce  
us to employ it: and that one fluid ounce of opium is  
ever safe, and especially in *colica stramonium*". I again  
reiterate, may be combined with each dose of the opium,  
given every four hours.

As opium is slow in its operation, it should be assisted by  
some brisk cathartic: either the stomach will bear it,  
a solution of the sulphate of magnesia in an infusion of  
senna is to be preferred: should this be rejected, the  
infusion of senna may be tried as last resort, to be thrown up.  
These purgative medicines will be rejected, & thus creating  
a violent tumour: A pint of the infusion of Anne's  
staining a draught of jalap is one of the best. Attending



the same with warm water, a moderate quantity of the  
opium by enemata containing it, or a solution of rectified  
aceticum in opusculum. The best is given as follows:  
Liquor huiusmodi bene mixtus, sumitur in conservando, & in  
of the bowels. Saturated aceticum when employed, at  
this purpose is dissolved to the strength of twenty or thirty  
grains in a pint of water. When opusculum is prepared,  
a solution is suspended in, making a pint. The  
same solution is prepared by infusing a drachm of the  
mucus of tobacco in a pint of water, or a half of which is to  
be used at each.

After the bowels have been opened, Styracis resinous is  
dissolved in three drachms of the spirit of wine, and con-  
sistens in a pint of water a large spoonful.  
This solution is given every six or eight hours, when the  
pain is considerable, keeping the bowels open until violent  
it is necessary, and using opusculum if the griping becomes  
severe. This medicine generally acts as an emetic, & some-  
times as a purgative, if rather diluted or cathartic is



to prevent the same, a narrow catheter is introduced into the rectum, and a small quantity of water is introduced, & another is inserted into the bladder to prevent the occurrence of hæmorrhage, in the case where it was expected to become necessary. The continuation of the leucorrhœa being not cured, there is a mitigation of the other symptoms, and a proper use of urinary and cathartic, with purgatives and so on, will cure the disease, without the cure.

When paralytic affections have taken place, the cure will be much more tedious, weeks and months often elapsing before that is effected & sometimes the paralytic will not be restored.

For the removal of the sequelæ of the disease, several means, & preparations have been employed, the most important of these are the Nitrate of Silver and the preparations of Mercury.

The Nitrate of Silver has been employed in these cases with undoubted success, and affections of considerable standing have yielded to its influence. There is also great









any other a salutarium & establisment

of late, the new remedy has been employed to the same  
purpose, in the treatment of partial paralysis and it is  
said with success. One of the ordinary effects of this  
remedy, is to produce a tetanic state of the muscles, in  
case of partial palsy, however, it is able too to have an  
opposite action, the affected muscles only, being brought in  
commotion, and that this is in proportion to the time of  
inhalation and retention of the gas. However this may  
be, the new remedy is known to be a powerful agent in  
pneumonia, & a kind might prove serviceable in pro-  
moting resolution, & the dose is given, five grains, & it  
produces more quietude during the day.

And applications are, followed by some practitioners to  
internal remedies in the treatment of palsy, from heat &  
stimulus and warm fomenting on the affected parts (which  
as to a right supported by spirits) are recommended by  
Sir Gregory as constituting the only efficient system of  
treatment, warm bathing and opulent medicines as to



is concerned with liver heat & venous.

After splints and bandages are seen to support the painful parts they should be removed and in the hands, for instance, the finger subjected to fixation, and the joint, even moving exercise as much as possible: when this is neglected, the joints become stiff, and the muscles of the part, which are not affected by the disease, become paralysed from want of exercise.

It is important in all cases when the disease has been induced by handling the popliteal space, that the patient, when first exposed to its power, that his clothes should be removed immediately after he is placed under treatment, and as soon as the violence of the disease will admit of it, be directed to thoroughly wash: the clothing of such patients clean enough in the prison, not only to maintain the disease in themselves, but to cause it in others.

This attention to personal cleanliness is of very great importance in preventing the disease in those whose trades expose them to it: namely, by not admitting patients of this class to the infirmary.



if such attention should be explained, washing the hands before meals, should be particularly insisted on; and frequent changes of clothes recommended.

Those who have suffered from Painter's Colic, are liable for a long time to returning of the disease; and any new exposure to its cause, will almost certainly bring on an attack; friction over the spine, with stimulating liniment, attention to the state of the bowels, tonic medicines, fresh air and exercise are the means recommended for preventing the return of the complaint.

It has been mentioned that acetoarsenic ligures become contaminated, by oxidizing the leaden vessels used in their manufacture; as in which they may be kept, for use; to prevent this Beut and Baugastine have proposed that an equal portion of tin should be united with the lead used in making such vessels, the salts of tin are not poisonous, and its oxide having a closer affinity for acids, than the oxide of lead, would combine with them to the exclusion of the latter.

The presence of lead in ligures, may be detected on the addition of sulphuric acid; a white precipitate is thrown



powder which is sulphate of lead. The hydrogen-sulphuric acid either in its gaseous form or dissolved in water, throws down the hydrogen-sulphate of lead, from any liquid containing this metal in solution; the precipitate is in the form of a black powder.

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This concluding what I have to say respecting *Colusa Pictorum* for its blemishes and imperfections, I can only plead in excuse that the one is unavoidable where the student depends for the mass of his information on authors already well known; and the other, cannot but be anticipated in the productions of one who can scarcely claim to have attained the threshold of that science, one application of which he has thus ventured to describe.

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